## COMBINED DECLARATION AND POWER OF ATTORNEY

<b>A</b>	s a below name	d inventor,	I hereby d	eclare tha	t:
M stated belo	y residence, po w next to my na	ost office acame; and	dress and	citizenshi	p are a
inventor (i and joint subject matthe invent	verily believed for only one name inventor (if parties of the claim of the claim of the claim and other the claim of the c	e is listed plural names aimed and fo DERIVATIZI	below) or s are list r which a p ED OLIGON	an origina ted below) patent is s UCLEOTIDES	l, firs of th ought o HAVIN
•	) is attached	i hereto.	•		-
(	XX) was filed Application amended on	on <u>October</u> n Serial N (if	o. PCT/US	<u> 92/09196</u>	nationa and wa
I contents of claims, as	hereby state f the above i amended by any	that I have dentified s amendment r	reviewed pecificati eferred to	and underson, include above.	tand th ling th
Trademark (	acknowledge th office all inf ty of this appl	formation kn	own to be	e material	to th
§ 119 of a certificate	hereby claim fany foreign ap listed below a for patent or that of any ap	oplication(s nd have also inventor's	) for pat identifie certifica	ent or in d below any te having	ventor' foreig a filin
date before					

I h reby claim the benefit under 35 U.S.C. § 120 of any Unit d States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to be material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Application Serial No. Filing Date Status (patented, pending)

07/782,374 October 24, 1991 pending

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: John W. Caldwell and Joseph Lucci, Registration Nos. 28,937 and 33,307 of the firm of WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS, One Liberty Place - 46th Floor, Philadelphia, Pennsylvania 19103, and Herb Boswell and Laurel Bernstein, Registration Nos. 27,311 and 37,280, of ISIS Pharmaceuticals, Inc., 2280 Faraday Avenue, Carlsbad, California 92008.

Address all telephone calls and correspondence to:

Joseph Lucci
WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS
One Liberty Place - 46th Floor
Philadelphia, PA 19103
Telephone No. 215-568-3100.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the

United States Code and that such willful false statements may j opardiz the validity of th application or any patent issued thereon.

	Full Name Muthiah Manoharan	Inventor's signature  August Mechen	Date 4/18/14				
2	Residence Citizenship Carlsbad, California India						
	Post Office Address 7634 Reposado Drive, Carlsbad, California 92009 U.S.						
	Full Name Phillip Dan Cook	Anyentorie Signature	Pata 4/15/94				
	Residence Carlsbad, California	Citizenship United States	$\mathcal{C}$				
	Post Office Address 7340 Bolero Street, Carlsbad, California 92009 U.S.						
	Full Name Clarence Frank Bennett	Inventor's Signature	Dat 4-15-4				
	desidence Citizenship United States						
	Post Office Address 2613 Valewood Avenue, Carlsbad, California 92008 U.S.						
	Full Name	Inventor's Signature	Dat				
4	Residence	Citizenship					
5	Post Office Address						
	Full Name	Inventor's Signature	Dat				
	Residence Citizenship						
	Post Office Address						

DOCKET NO.: ISIS-5425 PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Muthiah Manoharan, Phillip Dan Cook Confirmation No.: Not Yet Assigned

And C. Frank Bennett

Serial No.: Not Yet Assigned Group Art Unit: Not Yet Assigned

Filed: Herewith Examiner: Not Yet Assigned

For: Derivatized Oligonucleotides Having Improved Uptake And Other Properties

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

## ASSOCIATE POWER OF ATTORNEY

The undersigned, of the firm WOODCOCK WASHBURN LLP, One Liberty Place - 46th Floor, Philadelphia, Pennsylvania 19103, Attorney(s) and/or Agents for Applicant(s), hereby appoints the all the practitioners associated with Customer Number 32,650 his or her associates with full power to prosecute this application and to transact all business in the U.S. Patent and Trademark Office connected therewith. Each practitioner associated with Customer Number 32,650 is an attorney registered before the United States Patent and Trademark Office.

32650

Date: January 9, 2004

Registration No. 33,307

Woodcock Washburn LLP One Liberty Place - 46th Floor Philadelphia PA 19103 Telephone: (215) 568-3100

Facsimile: (215) 568-3439